

## SUMMER BIRDS OF CAPE COD COMPARED WITH THOSE OF MISSOURI

BY GORDON ALEXANDER

One accustomed to the more varied and abundant bird life of the Missouri river territory cannot fail but be impressed by the relative pooriness of the summer bird fauna of Cape Cod both in number of species and number of individuals. This statement of course does not apply to birds typical of the sea-coast, gulls and terns especially, but as a general statement it is true. That was the impression I gained from observations made in the summer of 1921. With the exception of that one summer, my own experience with birds has been gained in Missouri. From the second week in June to the fourth week in August, 1921, I was a member of the collecting crew of the Marine Biological Laboratory at Woods Hole, Mass.; and in such capacity often had the opportunity to make interesting observations of birds. This was, however, only incidental to the regular collecting work, which involved marine invertebrates and fishes, principally.

The territory of the report includes the "heel" of the Cape—the east shore of Buzzards Bay north to its head, at Onset, west along Vineyard Sound to Waquoit Bay; Marthas Vineyard and Nantucket Islands; and the Elizabeth Islands. For my basis of comparison in Missouri I have selected the Missouri river country in the central part of the state, for I am most familiar with that region. One may ask with good reason what may justify the comparison of such widely separated localities. To this let me say that the separation in miles is not the basis of the comparison. Other factors are involved, — factors which might just as easily be present in adjoining territories. The facts discovered may not lead to an absolute generalization. They only furnish data that may be interpreted as links in the chain of ecological factors that conspire to make one fauna different from another. And ecology not only yields information to the theoretical student of organic evolution, but has an economic value as well.

At Woods Hole, I was continually struck by what seemed to me the poverty of the territory from the standpoint of a bird student. This was partially due to my lack of familiarity with the territory, but surely not altogether. I have the more reason to doubt that since Mr. Henry W. Henshaw, who was at Woods

Hole a part of the summer, expressed that opinion regarding the Woods Hole region. His basis for comparison was the territory about Washington, D. C. And with such extensive experience as his back of his statement, I could not help but feel that there was some foundation for my impression.

In searching for an explanation of this condition, I have come to the conclusion that the most potent factor involved is the relative acreage of land under cultivation. The land along the Missouri river is largely in farms. There is very little waste land. On the other hand, Cape Cod is not an agricultural territory. Much of the land is overgrown with straggly pitch pine, and the soil is not valuable when tilled. The pitch pine is not good bird-cover, and very little good bird-cover will grow where this awkward, angular tree flourishes. Of course all of Cape Cod is not such a barren waste as one sees in the dune region of northern Indiana, but there is enough of this kind of territory to consider in a study of birds, nesting birds especially. The deciduous trees on the mainland have suffered extensively from the gypsy and brown-tail moths, but I saw no evidence of damage on any of the Elizabeth Islands. Nevertheless, bird life was nowhere abundant, although some few species were much in evidence. It is to be noted that there were fewer insectivorous birds in numbers of individuals than there were birds of other food habits. From this fact I believe that that scarcity was due, not to poor bird-cover, but to the lack of insects for food.

Cape Cod is representative of the eastern transitional or Alleghenian life zone. Missouri, at least that portion concerned in this comparison, is eastern Upper Austral, or Carolinian. The differences between the two zones are not great, and there is naturally much overlapping. Furthermore the comparison is not altogether that of zones. Cape Cod is, I believe, hardly typical of the Alleghenian, and yet it is just as truly of that zone as is the larger portion of Wisconsin. Both Cape Cod and Missouri are in the so-called humid area, but the humidity is decidedly greater on the Cape. This difference can not be of great significance, however. Aside from the fact that the areas are in different life zones, as I have said before Missouri has a much larger acreage under cultivation, relatively speaking as well as actually, than has Cape Cod. Then too, that which is "cultivated" on the Cape is largely in the nature of "land-

scaped" estates which may provide bird houses but seldom brush piles for the birds. These facts largely explain the apparent scarcity of summer birds on the Cape, while the differences in zone explains the distinctive characters of the two faunas.

I could not help noticing the absence of certain species and the comparative scarcity of certain others which I had expected to find abundant. During the entire summer I saw no Nighthawks, Bluebirds, Brown Thrashers, or Blue Jays. Robins were not common, nor were Field Sparrows. On the other hand, Song Sparrows were everywhere. They were very abundant. Barn Swallows were very common. Purple Finches were common, as also Maryland Yellow-throats and Chestnut-sided Warblers. The Song Sparrows, Purple Finches, and Chestnut-sided Warblers are typical of the Alleghenian zone.

Two groups of birds seemed to be particularly uncommon. A Marsh Hawk on Nantucket Island was the only bird of prey I recorded all summer. A Bald Eagle was recorded by a student at the Laboratory, from Buzzards Bay, that being the only record other than my own of which I heard. The woodpeckers were also rare. Of these I saw one each of the Downy and the Flicker — not another individual. I can make no suggestion in explanation of the rarity of the hawks. (Regarding the woodpeckers, see annotations under species.) The summer of 1921 may have been exceptional from the standpoint of this observed rarity but my observation was certainly true for the period of time covered.

The appended list includes the forty-nine species that I observed with five added that were only recorded by students at the Laboratory. A summer list for Missouri (reflecting the same amount of observation) should show some sixty-five or seventy species nesting. It is to be remembered, too, that the following list includes not only nesting birds but some early fall migrants and a few non-breeding, irregular, summer residents. For information on the presence of certain species in Missouri I have referred to the reports of Mr. Otto Widmann of St. Louis, and Mr. Harry Harris of Kansas City. I have also checked my Cape Cod records with the reports of competent authorities for that region. I am indebted to Mr. George M. McNeil of Ithaca, N. Y., for first-hand information regarding sea-birds. He was engaged for the first part of the summer in collecting birds of the open ocean to the south and east of the territory of this report.



1. LOON—*Gavia immer*.

Two were seen July 29 a short distance off shore in Buzzards Bay. Others were reported during the summer. These were very likely non-breeding individuals. In Missouri, where I have never seen it, the Loon is only an uncommon transient or winter resident.

2. HERRING GULL—*Larus argentatus*.

Not uncommon up to the last of June. Immature individuals rather common after August 15. Occasional, non-breeding individuals were seen during July and the first half of August. Herring Gulls are regular, though not common, migrants on the Missouri.

3. LAUGHING GULL—*Larus atricilla*.

Very common throughout the season. Nested on the Weepeckets, Buzzards Bay, about three miles from Woods Hole. Extra-limital in the Middle West.

4. COMMON TERN—*Sterna hirundo*.

The more common tern. Nesting on the Weepeckets and Pine Island in company with the next following species. Spring transient (May) in Missouri, but rather rare.

5. ROSEATE TERN—*Sterna dougalli*.

Fairly common, but less so than the Common Tern. Readily distinguished in flight by its longer tail, and its black bill. The pinkish tinge to the breast is not then noticeable.

I have seen neither the Common nor the Roseate in Missouri, where I have noted only the Least as breeding, and the Black Tern as a transient.

6. WILSON'S PETREL—*Oceanites oceanicus*.

A few were observed on Nantucket Sound several miles from shore.

7. WHITE-WINGED SCOTER—*Oidemia deglandi*.

Several flocks of non-breeding stragglers remained in the vicinity of Woods Hole throughout the summer. One individual was picked up in a famished condition and taken to the Laboratory, where it died in a short time. The bird's feathers were not oily. I have no explanation of its inability to get food.

8. LITTLE BLUE HERON—*Florida caerulea*.

One or two birds which I identified as belonging to this species were seen at Hadley Harbor, Uncatena Island, the second week in August. Little Blue Herons regularly wander north after the nesting season on the Atlantic Coast as well as in the Mississippi Valley. They are frequently observed along the Mississippi in Missouri, but are less common on the Missouri in the central part of the state.

9. GREEN HERON—*Butorides v. virescens*.

Fairly common throughout the summer. Present with the same status in Missouri.

10. BLACK-CROWNED NIGHT HERON—*Nycticorax nycticorax naevius*.

Several pairs were observed at a fresh-water pond at Falmouth, where we frequently collected planarians. Though I saw no nests, they were doubtless in the vicinity. I have never seen the species in Missouri, but it was formerly regular though uncommon as a transient and as a summer resident.

11. WHITE-RUMPED SANDPIPER—*Pisobia fuscicollis*.

On July 29 I saw a flock of fifteen of these birds on Cuttyhunk Island. The species is rather rare in Missouri, but I believe more common on the Atlantic Coast.

12. LEAST SANDPIPER—*Pisobia minutilla*.

One individual was seen at Cuttyhunk July 29. Fairly common transient on the Missouri River.

13. SPOTTED SANDPIPER—*Actitis macularia*.

This species proved to be fairly common on the Cape throughout the summer, and was doubtless breeding, though I saw no nests. Present in the Missouri River bottoms during the summer, but far more common as a transient.

14. PIPING PLOVER—*Egialitis meloda*.

Two individuals were noted on the beach at Nantucket July 24.

15. BOB-WHITE—*Colinus v. virginianus*.

Fairly common summer resident. Somewhat more common in Missouri.

16. RUFFED GROUSE—*Bonasa u. umbellus*.

One adult and one young grouse were flushed together in timber land near Waquoit Bay. Formerly present in Missouri, but now believed to be extinct here.

17. MARSH HAWK—*Circus hudsonius*.

The only Raptore noted during the summer. One individual was flushed from a grassy meadow on Nantucket Island July 24. A regular, not uncommon transient, and occasional winter visitant along the Missouri River in Missouri.

18. BLACK-BILLED CUCKOO—*Coccyzus erythrophthalmus*.

Recorded as fairly common near Falmouth. Uncommon in Missouri, where the Yellow-billed is far more abundant.

19. BELTED KINGFISHER—*Ceryle a. alcyon*.

Frequently recorded during the summer; probably nesting. More common than in Missouri during the summer.

20. DOWNY WOODPECKER—*Dryobates pubescens medianus*.

Only one individual observed. The woodpeckers of the Cape were very rare; while along the Missouri they are distinctly abundant. This abundance is due, I believe, to the extensive areas of uncleared land along the river overgrown with deciduous trees.

21. FLICKER—*Colaptes auratus luteus*.

Only one individual recorded. Very common in Missouri.

22. CHIMNEY SWIFT—*Chaetura pelagica*.

As in Missouri, a very common summer resident.

23. KINGBIRD—*Tyrannus tyrannus*.

A common summer resident about Woods Hole and Falmouth. Somewhat more abundant in Missouri.

24. WOOD PEWEE—*Myiochanes v. virens*.

Fairly common summer resident. About the same relative abundance in both territories considered.

25. AMERICAN CROW—*Corvus b. brachyrhynchus*.

A very common species both on the Cape and in Missouri; and in both areas evincing a great fondness for water—not so much for the

sake of the water, of course, as for the food in and near it. On the Cape, Crows were very common along the shore; in Missouri they gather in small flocks on the sandbars of the Big Muddy.

26. COWBIRD—*Molothrus a. ater*.

Common at Falmouth. Present with the same status in Missouri.

27. RED-WINGED BLACKBIRD—*Agelaius p. phoeniceus*.

Commonly nesting in marshes along the coast. More common along the Missouri, however, where nests are built in the willows as well as in the marsh grass and cattails.

28. MEADOWLARK—*Sturnella m. magna*.

Very common summer resident in Missouri, but recorded only from Nantucket Island during the summer of 1921. It was apparently fairly common there.

29. BALTIMORE ORIOLE—*Icterus galbula*.

The Baltimore and Orchard Orioles are both very common summer residents in Missouri, but only the former is present regularly on the Cape. There I found it fairly common.

30. PURPLE GRACKLE—*Quiscalus q. quiscula*.

The common Grackle of the Cape, replaced in Missouri by the apparently larger, and certainly lighter-colored, Bronzed Grackle (*Q. q. aeneus*). Probably the color accounts for the apparent difference in size, as it is a well-known, psychological fact that lighter-colored objects appear larger than darker-colored ones of the same size.

31. PURPLE FINCH—*Carpodacus p. purpureus*.

I found this species very common at Woods Hole. Young out of the nest were seen the last week in June. Present as a winter resident or transient in the Missouri River country.

32. GOLDFINCH—*Astragalinus t. tristis*.

Rather common about the town of Woods Hole. About the same relative abundance in Missouri.

33. VESPER SPARROW—*Pooecetes g. gramineus*.

One individual was seen near Falmouth the 15th of July. I do not believe that the species was common on the Cape. It is not a regular summer resident in Missouri, but is not uncommon during the migrations.

34. CHIPPING SPARROW—*Spizella p. passerina*.

Common summer resident in both regions compared.

35. FIELD SPARROW—*Spizella p. pusilla*.

Only occasionally heard or seen on the Cape, but one of our most abundant sparrows in Missouri.

36. SONG SPARROW—*Melospiza m. melodia*.

I was greatly impressed by the number of nesting birds of this species about Woods Hole. It is present as a winter resident in Missouri, and is then very common in the dense willow growths of the river bottoms.

37. TOWHEE—*Pipilo c. erythrophthalmus*.

As a summer resident of the Cape, the Towhee was more in evidence than it is in Missouri. It was fairly common, and its call note was frequently heard.



38. CLIFF SWALLOW—*Petrochelidon l. lunifrons*.

On July 24 I saw several birds of this species at Nantucket. They were lined up on telephone wires along a dusty road. Rather uncommon transient in Missouri, and decidedly rare as a summer resident.

39. BARN SWALLOW—*Hirundo erythrogastra*.

Very abundant in the Woods Hole region. Much less in evidence, though common, along the Missouri River in this state.

40. BANK SWALLOW—*Riparia riparia*.

Several recorded at Nantucket July 24. Locally present in colonies in Missouri.

41. RED-EYED VIREO—*Vireosylva olivacea*.

One recorded at Woods Hole the middle of August. Not uncommon summer resident in Missouri.

42. BLACK AND WHITE WARBLER—*Mniotilta varia*.

Fairly common summer resident on the Cape. Rarely nesting in Missouri.

43. YELLOW WARBLER—*Dendroica ae. aestiva*.

Only fairly common on the Cape, but a very common nesting bird of the Missouri River bottoms where its nests are easily found in the willow "brakes."

44. CHESTNUT-SIDED WARBLER—*Dendroica pensylvanica*.

Very common nesting bird about Woods Hole and Falmouth. Two families of young birds were seen out of the nest on July 4. Present in Missouri only as a rather uncommon transient, much more regular in the eastern than in the western part of the state.

45. OVEN-BIRD—*Sciurus aurocapillus*.

The song of the "Teacher-bird" was among the most common in all the timber-land of the Woods Hole region. The bird is rare as a summer resident in Missouri.

46. MARYLAND YELLOW-THROAT—*Geothlypis t. trichas*.

Common on the Cape—as much so as in Missouri, where it is very much in evidence.

47. CATBIRD—*Dumetella carolinensis*.

Present, but not so abundant on the Cape as it is in the dense timber-land of the Missouri River bottoms.

48. CHICKADEE—*Penthestes a. atricapillus*.

Summer resident in the Woods Hole region, but more common in Missouri.

49. ROBIN—*Plantesticus m. migratorius*.

As I have mentioned previously, this species was much less abundant at Woods Hole than I expected to find it. It could only be considered as fairly common there, while it is distinctly abundant in the territory I have used for my comparison.

The following species were reported on good authority, but were not on my list:

50. AMERICAN BITTERN—*Botaurus lentiginosus*.

One individual.

51. WOODCOCK—*Philohela minor*.

One individual, near Woods Hole.

52. BALD EAGLE—*Haliaeetus l. leucocephalus*.  
Recorded as flying over Buzzards Bay.
53. SWAMP SPARROW—*Melospiza georgiana*.  
One seen near Woods Hole.
54. PRAIRIE WARBLER—*Dendroica discolor*.  
A pair was reported as nesting near Woods Hole.  
Marshall, Mo., June 28, 1922.
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## NOTES ON THE BIRD LIFE OF ALLEGHENY COUNTY, PENNSYLVANIA

THOMAS D. BURLEIGH

Allegheny County lies in the southwestern part of the state and because of its varied topography offers an interesting field for bird study. A limited field, however, for the city of Pittsburgh occupies its center and one can cross the county line within twenty miles of practically any point at the edge of the city. As is more or less well known the Allegheny and Monongahela rivers unite here to form the Ohio, and these rivers unquestionably are an important factor in the distribution of the bird life of this region. This is not only true of the migrants which follow these streams in their journeys north and south but also of the breeding birds, for there are some species such as the Blue-gray Gnatcatcher which I have found only in the stretches of woods bordering these rivers or along their larger tributaries, and others show a decided preference for such localities. On the whole this region is rather hilly and what might be termed moderately rough for the rivers are bordered by high bluffs cut at irregular intervals by open valleys or ravines and it is necessary to go back some distance before reaching much level country. This last is more often than not merely low broad plateaus between the numerous streams so a walk of any duration necessitates the crossing of occasional valleys or gulleys. Much of the land is farmed, but there are numerous stretches of woods covering not only hillsides and the scattered ravines and gulleys but also some of the more level country. The timber consists largely of second growth hardwoods of which many species are represented, those predominating being the white oaks, black oaks, hickories, ash, black willow, beech, black locust, white elm, red maple and sycamore. Conifers are scarce and widely scattered. An occasional field will be found over-